

tive, meaning "pertaining to a willow tree." A parallel is afforded in the word *legionarius*, originally an adjective but which came to be used as a noun—a legionary, that is, a soldier of a legion. A great number of similar nominatives are listed by Professor Merrill in a special paper of his (Univ. Calif. Publ. Class. Phil., vol. 2, 1910, pp. 57-65).

It is true that Professor Merrill also says that the combination *Guiraca carulea salicarius* is in poor taste as regards its "Latinity"; that is, the Latins would not have written it that way. This consideration is, of course, immaterial in nomenclatural questions, which questions are now settled by arbitrarily formulated rules, one of which prescribed retention of words of this category unchanged in construction from the form in which they were first proposed.

As originally proposed, the word *salicarius* was a noun, and it must retain its own gender, masculine, irrespective of the genus name with which it is associated; it is, in truth, a "substantive in the nominative in apposition with the generic name." It would thus appear that *Guiraca carulea salicarius* is, from the nomenclatural standpoint, a perfectly tenable combination for the California Blue Grosbeak, and must be kept inviolate.—J. GRINNELL, *Museum of Vertebrate Zoology, Berkeley, California.*

Editions of Baird, Cassin and Lawrence's 'Birds of North America.'—This well known work appeared first in 1858 as Volume IX of the 'Pacific Railroad Surveys' and constitutes a complete summary of the ornithology of the various expeditions as well as of the Mexican Boundary Survey. The separate report on the ornithology of the last as well as of several of the Pacific Railroad expeditions, did not appear until a year or two after Volume IX, but their contents are included in it. While no plates accompanied Volume IX there were thirty-three colored plates published along with the reports of the various surveys and twenty-five with the Mexican Boundary report.

In 1860 Volume IX appeared under a new title, 'The Birds of North America' with the imprint, Philadelphia, J. B. Lippincott & Co. The text is exactly the same from p. xvii of the introductory portion to the end of the volume and apparently printed from the same plates as the original. The four pages of "Preface" are reprinted in three pages, apparently without change of wording but in smaller type, the "Contents" are reprinted and slightly altered, and a page of "Advertisement" is added as well as a different title page.

An atlas of one hundred colored plates accompanied this work. There is a title page identical with that of the text except for the substitution of "Plates" for "Text"; pages i-ii contain a preface; pp. iii-viii, "Explanation of Plates"; and ix-xi "Systematic List of Illustrations."

Of the thirty-three plates of the various survey volumes, thirty-one appear in this atlas, nearly all of them being retouched and some of them redrawn but all these closely resembling the originals, names have been

added to all of them, which were originally lacking, and the plate numbers and references at the top are changed or reengraved. In some cases the plates of the original reports are superior to those in the Atlas while in others the latter are the better impressions. The coloring of the Atlas plates is nearly always better done. Curiously enough the numbers in the upper right hand corner of the original plates of the separate surveys are the numbers of their position in the Atlas and have no reference to their position in the reports. Two of the original plates, that of the Horned Lark and Mountain Bluebird (Report on the 38th.; 39th., and 41st. Parallels; plates XXXII and XXXV) do not appear in the Atlas, their places being taken by new plates of the Florida Grackle and Red-naped Sapsucker respectively. They are however, Dr. Richmond tells me, bound up in Prof. Baird's copy at the U. S. National Museum, in addition to the substituted plates, the Bluebird by the way being uncolored; but this was undoubtedly done for his personal convenience.

Of the twenty-five plates of the Mexican Boundary Report twenty-four appear in the Atlas somewhat retouched and sometimes with the addition of a landscape background lacking in the original. They are numbered I-XXIV as in the original report. Plate XXV however, is replaced by a new plate (LXIII) consisting of a reduced representation of the Black-bellied Tree Duck which occupied the whole plate in the original, and a figure of the Fulvous Tree Duck in addition. The remaining thirty-seven plates appear for the first time in the Atlas.

The above facts are not new, except, perhaps, the exact collation of the plates with those of the original reports, and are given in Coues' Bibliography and doubtless elsewhere, as well as in the preface to the 'Birds of North America' itself. Recently, however, my attention has been called to some other facts about the work which I do not find mentioned in any bibliography. I have before me a copy of the Atlas, bearing the imprint of D. Appleton & Co., New York, 1860; which shows that Lippincott was not the only publisher who handled the work. This edition of the Atlas seems to be exactly like the Philadelphia imprint, and doubtless the text, which I have not seen, is identical. There is, however, another edition which is decidedly different and which bears the imprint; Salem: Naturalist's Book Agency, 1870; with Philadelphia: J. B. Lippincott & Co., 1860, above it in smaller type.

The Atlas of this edition is inferior to that of 1860. Many of the plates have been again retouched and some redrawn often in a decidedly crude fashion, while one plate, No. XIV *Buteo calurus*, is entirely different, the bird facing the other way. In a large number of these plates moreover, the names are lacking, while in the redrawn ones there is no border line and no lettering whatever except the plate number.

The coloring of the Atlas of 1860 is far better done than the plates of either the original reports or those of the 1870 edition while the coloration of a number of the figures differs materially in all three, the Sandwich Spar-

row being pinkish brown in one case and deep olive green in another. There seems to be no record of the names of the artists who were responsible for these plates.—WITMER STONE, *Academy of Natural Sciences, Philadelphia*.

Observations on the Shifting Range, Migration and Economic Value of the Bobolink.—The inclusion of the Bobolink among the birds protected by the recently consummated treaty with Canada for the protection of migratory birds, resulted in an immediate demand for an investigation of its present-day economic status, which was carried on in the states from New Jersey south to Florida, inclusive, in August to October, 1918. A few points were brought forcibly to the writer's attention which perhaps are not wholly realized by ornithologists in general. First, as to the shifting of breeding grounds by the Bobolink, for to my mind that is what is occurring. The trend of the bird's breeding range to the north-west is unmistakable; for instance in the first edition of the A. O. U. Check-List, the Western limit of the breeding range was given as the Great Plains; in the second edition, 1895, as Nevada, Idaho and Alberta, and in the third edition, 1910, as British Columbia. Now unless there has been a considerable increase in the numbers of the species, the population of eastern breeding grounds must have fallen off, and this latter condition is one of which New England observers in particular complain. Rice growers in the South who have the best opportunity of judging the abundance of the species contend that the bird is less numerous than formerly. Putting these two things together, a vastly extended range and no increase, possibly a decrease in number of individuals, diminution of the Bobolink population somewhere is inevitable. This condition has actually been observed in the northeastern states, completing the cycle of evidence that a shift in range has occurred.

The persistence of birds in maintaining migration routes is particularly exemplified by the Bobolink. After extending its range westward, over hundreds of miles and across two mountain systems, the species with insignificant exceptions returns to the Atlantic Coast before turning to the south. The main fall migration path seems to converge into a funnel not far south of the breeding range through which the birds pour in a narrow stream along the coast of southern North Carolina, South Carolina and Georgia, expanding again so as to cover the whole breadth of peninsular Florida. Even farther north, before this migration stream is definitely formed, the birds are much more abundant near the coast than inland as in the wild rice marshes on tidewater from New Jersey to Virginia. Not only do the vast majority of Bobolinks seek a narrow track along the Atlantic seaboard for their southward migration, but they reach all parts of it almost simultaneously. Florida seems to form an exception to this statement, but in Georgia and South Carolina both the earliest dates (July 13-19) of fall migration and the bulk arrivals (August 15-21) are as early as those for the vicinity of Philadelphia. At a plantation on Goose Creek, South Caro-